TO
SUBSCRIBER
HOME
MODEM

CABLE
INTERFACE
CARD

101

BUFFER

105

ETHERNET
CARD
(INTERFACE TO
INTERNET)

110

INTERNET

FIG. 1
(PRIOR ART)

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FIG. 2

FIG. 3

CURRENT FLOW RATE

MINth
MAXth
Pa

CURRENT PACKET PRIORITY

	NEEDY	NORMAL	GREEDY	SURER-GREEDY
PRIORITY 0	98% 99% 0.1	75% 95% 0.1	65% 85% 0.1	5% 25% 0.1
PRIORITY 1	98% 99% 0.1	65% 85% 0.1	55% 75% 0.1	5% 25% 0.1
PRIORITY 2	98% 99% 0.1	55% 75% 0.1	45% 65% 0.1	5% 25% 0.1
PRIORITY 3	98% 99% 0.1	45% 65% 0.1	35% 55% 0.1	5% 25% 0.1
PRIORITY 4	98% 99% 0.1	35% 55% 0.1	25% 45% 0.1	5% 25% 0.1
PRIORITY 5	98% 99% 0.1	25% 45% 0.1	15% 35% 0.1	5% 25% 0.1

ENSURES Tmin IS GUARANTEED
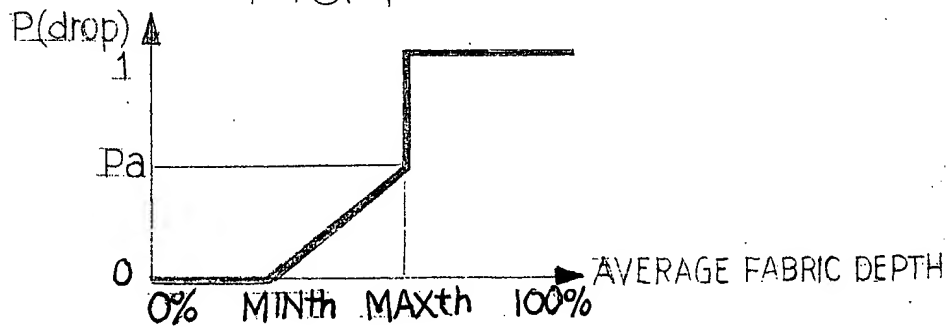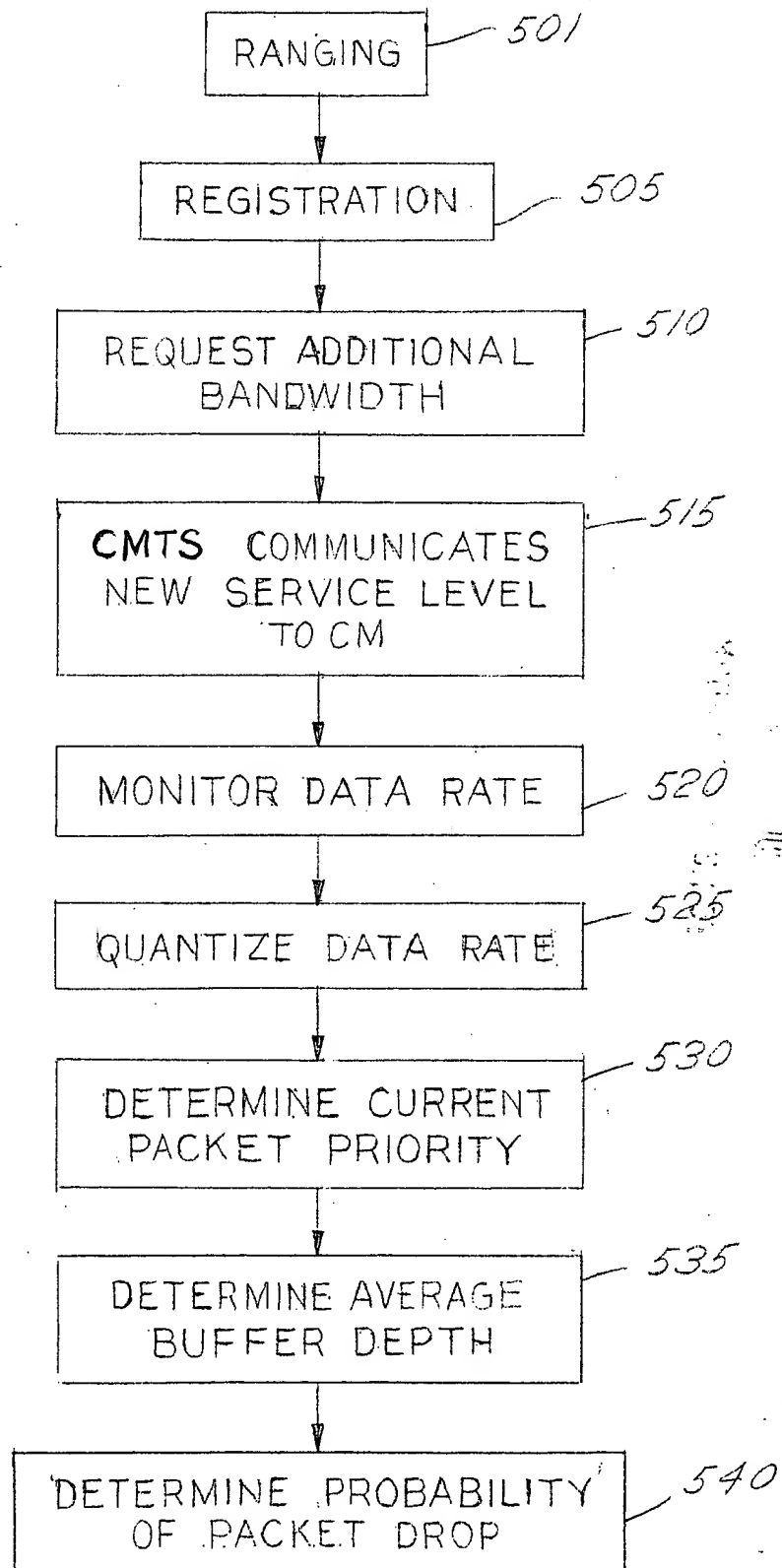
ENSURES Tmax IS A PSEUDO-HARD LIMIT

FIG. 4

P(drop)

1

Pa

0

0%   MINth   MAXth   100%   AVERAGE FABRIC DEPTH

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FIG.5

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┌──────────────┐
│   RANGING    │ ——— 501
└──────────────┘
        │
        ▼
┌──────────────┐
│ REGISTRATION │ ——— 505
└──────────────┘
        │
        ▼
┌────────────────────┐
│ REQUEST ADDITIONAL │ ——— 510
│     BANDWIDTH      │
└────────────────────┘
        │
        ▼
┌────────────────────┐
│ CMTS  COMMUNICATES │ ——— 515
│ NEW  SERVICE LEVEL │
│       TO CM        │
└────────────────────┘
        │
        ▼
┌────────────────────┐
│ MONITOR DATA RATE  │ ——— 520
└────────────────────┘
        │
        ▼
┌────────────────────┐
│ QUANTIZE DATA RATE │ ——— 525
└────────────────────┘
        │
        ▼
┌────────────────────┐
│ DETERMINE CURRENT  │ ——— 530
│  PACKET PRIORITY   │
└────────────────────┘
        │
        ▼
┌────────────────────┐
│ DETERMINE AVERAGE  │ ——— 535
│   BUFFER DEPTH     │
└────────────────────┘
        │
        ▼
┌─────────────────────────┐
│ DETERMINE PROBABILITY   │ ——— 540
│   OF PACKET DROP        │
└─────────────────────────┘
```

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FIG.6